

**Montana Board of Oil and Gas Conservation
Environmental Assessment**

Operator: KeeSun Corporation
Well Name/Number: Suta 8-14
Location: SE NE Section 14 T32N R5W
County: Glacier MT; Field (or Wildcat) Wildcat

Air Quality

(possible concerns)

Long drilling time: No, 2 to 4 days drilling time.

Unusually deep drilling (high horsepower rig): No, small single derrick drilling rig to drill to 2900' TD

Possible H2S gas production: No, formation at TD is the Jurassic Rierdon Shale.

In/near Class I air quality area: Yes, Class I air quality area nearby is the Blackfoot Indian Reservation to the west.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: No special concerns – using small rig to drill to 2900' TD.

Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater, freshwater mud system, air, air mist.

High water table: No high water table anticipated.

Surface drainage leads to live water: Closest drainage is an unnamed ephemeral drainage, about 1/8 of a mile to the east from this well location.

Water well contamination: No, closest domestic water wells are about 1/4 of a mile to west, 1/4 of a mile to the southeast, 5/8 of a mile to the northeast and 5/8 of a mile to the north from this location. Depth of water wells range from 150' to 500'. Surface casing in this well will be drilled with air or freshwater and steel surface casing set at 300' and cemented to surface. If productive 4 1/2" casing will be run and cemented.

Porous/permeable soils: No, sandy bentonitic soils.

Class I stream drainage: No Class I stream drainages in the area.

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

☐ Other: _____

Comments: 300' of surface casing cemented to surface adequate to protect freshwater zones. Also, air/air mist systems to be used.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No, stream crossings anticipated. Crossing only ephemeral drainages.

High erosion potential: No, no cut, up to 0.0' and small fill, up to 1.1', required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, 200'X200' location size required.

Damage to improvements: Slight, surface use is a cultivated field.

Conflict with existing land use/values: Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other _____

Comments: Access will be over existing county road, East Marias Road and existing two track ranch road. About 1000' of new access will be built into this location from the two track ranch road. Cuttings will be buried in and unlined earthen pit. Drilling fluids if used will be allowed to dry in the pit. Pits will be backfilled after drying. No special concerns

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residences are about 3/8 of a mile to the southeast and about 5/8 of a mile to the northeast from this location. The town of Ethridge, Montana is about 4.5 miles to the north of this location.

Possibility of H2S: None anticipated.

Size of rig/length of drilling time: Small drilling rig/short 2 to 4 days drilling time.

Mitigation:

☒ Proper BOP equipment

☐ Topographic sound barriers

☐ H2S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: Adequate surface casing and operational BOP should mitigate any problems. No concerns.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Listed threatened or endangered species is the Grizzly Bear, Canada Lynx, Bull Trout and Gray Wolf. Candidate species are the Sprague's Pipit and the Wolverine. NH tracker website lists only 1 sensitive species and this is the Peregrine Falcon.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DSL)
- ☐ Screening/fencing of pits, drillsite
- ☐ Other: _____

Comments: Private land with location cultivated fields. No concerns.

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites: None identified.

Mitigation

- ☐ avoidance (topographic tolerance, location exception)
- ☐ other agency review (SHPO, DSL, federal agencies)
- ☐ Other: _____

Comments: Private surface lands, cultivated fields. No concerns.

Social/Economic

(possible concerns)

- ☐ Substantial effect on tax base
- ☐ Create demand for new governmental services
- ☐ Population increase or relocation

Comments: No concerns.

Remarks or Special Concerns for this site

Well is a 2900' Jurassic Rierdon Formation test.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur, but can be mitigated.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/Steven Sasaki

(title:) Chief Field Inspector

Date: March 8, 2011

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Glacier County water wells.

(subject discussed)

March 8, 2011

(date)

US Fish and Wildlife, Region 6 website

(Name and Agency)

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES

MONTANA COUNTIES, Glacier County

(subject discussed)

March 8, 2011

(date)

Montana Natural Heritage Program Website (FWP)

(Name and Agency)

Heritage State Rank= S1, S2, S3, T32N R5W

(subject discussed)

March 8, 2011

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____